

MATERIAL SAFETY DATA SHEET
MSDS
FOR ODORIZED PROPANE

Health Administration Hazard Communication Standard published November 23, 1983 (Title 29 CFR Part 1910).

Chemical Manufacturers, Importers, and Distributors must have complied by November 25, 1985. All manufacturing employers covered by the Standard (SIC Codes 20-39) must have complied by May 25, 1986.

The Standard was amended August 24, 1987 (Vol. 52, Federal Register, page 31852) to extend its application beyond the manufacturing sector and to include all employers where chemicals are either used, distributed, or are produced for use or distribution, effective May 23, 1988.

Also for complying with the requirements of the Environmental Protection Agency Community Right to Know rules published October 15, 1987 (Vol. 52, Federal Register, page 38344) under Title III of the Superfund Amendments and Reauthorization Act of 1986 (Public Law 99-499).

INSTRUCTIONS TO SUPPLIER USING THIS MSDS

- Insert Supplier Name, Address, and Emergency Phone Number in Section I
- Insert Supplier Issue Date in Section XII. This is the date the supplier adopted this MSDS for distribution to customers.
- Have copies reproduced for distribution.

NOTE: IF MSDS IS USED FOR UNODORIZED LP-GAS:

1. *Remove* the words "Product contains an odorant (unpleasant odor)", and
2. *Add* the words "Product is odorless" IN SECTION I under *Appearance and Odor*.

Section VI**REACTIVITY DATA**

Stable: X Unstable: _____ Hazardous Decomposition Products: None
Incompatibility (materials to avoid): Mixing with oxygen or air, except at burner
Hazardous Polymerization: May occur _____ Will not occur X

Section VII**SPILL OR LEAK PROCEDURES**

Steps to be taken in case material is released: Keep public away. Shut off supply of gas. Eliminate sources of ignition. Ventilate the area. Disperse with water spray. Contact between skin and these gases in liquid form can cause freezing of tissue causing injury similar to thermal burn.

Waste Disposal Method: Controlled burning. Contact supplier.

Section VIII**SPECIAL PROTECTION INFORMATION**

Respiratory Protection: Stay out of gas or vapor (because of fire hazard). Ventilation: Explosion-proof motors and keep sources of ignition at safe distances. Personal Protective Equipment and Apparel: Gloves resistant to the actions of LP-gases, goggles for protection against accidental release of pressurized products.

Section IX**SPECIAL PRECAUTIONS**

Precautions to be taken when handling and storing: Keep containers away from heat sources and store in upright position. Containers should not be dropped. Keep container valve closed when not in use. Other Precaution: Install protective caps and plug container service valve when not connected for use.

Section X**TOXICOLOGICAL INFORMATION**

OSHA Carcinogen Classification (29 CFR 1910) Not listed/applicable X

U.S. Department of Health (21 CFR 184.1655): Generally recognized as safe (GRAS) as a direct human food ingredient when used as a propellant, aerating agent and gas as defined in Section 170.3(o)(25).

Section XI**DOT LABELING INFORMATION (49 CFR 100-199)**

Proper shipping name: Liquefied Petroleum Gas Identification No.: UN 1075
Hazardous Classification: Flammable Gas Label(s) Required: Flammable Gas

Section XII**ISSUE INFORMATION**

Issue Date: _____

This material safety data sheet and the information it contains is offered to you in good faith as accurate. This Supplier does not manufacture this product but is a supplier of the product independently manufactured by others. Much of the information contained in this data sheet was received from sources outside our Company. To the best of our knowledge this information is accurate, but this Supplier does not guarantee its accuracy or completeness. Health and safety precautions in this data sheet may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely, comply with all applicable laws and regulations and to assume the risks involved in the use of this product.

NO WARRANTY OR MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSES, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE.

Section I**MATERIAL SAFETY DATA SHEET**

Supplier's Name: _____

Emergency
Phone Number: _____

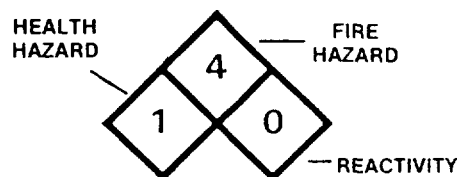
Address: _____

Chemical Name: LIQUEFIED PETROLEUM GAS or PROPANEFormula: C_3H_8 CAS Registry No.: 74-98-6 Chemical Family: Hydrocarbon

WARNING: Danger! Extremely flammable. Compressed Gas Asphyxiant in high concentrations. Contact with liquid causes burns similar to frost bite. OSHA permissible exposure limit (PEL) 1000 ppm for an 8-hour work-day.

Appearance and Odor: Vapor and liquid are colorless.

Product contains an odorant (unpleasant odor).



4 — Severe
3 — Serious
2 — Moderate

1 — Slight
0 — Minimal

Section II**HAZARDOUS INGREDIENTS**Hazardous Mixtures: Air with 2.15 to 9.60 percent propane**Section III****PHYSICAL DATA**

Boiling Point: - 44 °F
Specific Gravity ($H_2O = 1$): 0.51
Vapor Density (air = 1): 1.52
Solubility in Water: Slightly

Vapor Pressure (PSIG) at 100 °F: 205
Percent, Volatile by Volume (%): 100
Evaporation rate: Gas at normal ambient temperatures

Section IV**FIRE AND EXPLOSION HAZARD DATA**

Flash Point: - 156 °F (CC) Classification: Flammable Gas UN 1075
Flammable Limits - LFL: 2.15 UFL: 9.60 Extinguishing Media: Water spray-Class A-B-C or BC fire extinguisher.
Special Fire Fighting Procedures: Stop flow of gas. Use water to keep fire exposed containers cool. Use water spray to disperse unignited gas or vapor. If ignition has occurred and no water available, tank metal may weaken from overheating. Evacuate area. If gas has not ignited, LP-gas liquid or vapor may be dispersed by water spray or flooding.

Decomposition Products under Fire Conditions: Fumes, smoke, carbon monoxide, aldehydes and other decomposition products, in the case of incomplete combustion or when used as an engine fuel.

“EMPTY” Container Warning: “Empty” containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to clean since residue is difficult to remove. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

Section V**HEALTH HAZARD**

OSHA P.E.L.: 1000 PPM ACGIH TLV: 1000 PPM Effects of Overexposure: Inhalation - concentrations can lead to symptoms ranging from dizziness to anesthesia and respiratory arrest. Eyes - moderate irritation. Emergency & First Aid procedures: Inhalation - remove to fresh air. Guard against self injury. Apply artificial respiration if breathing has stopped.

Prepared by

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